

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.- 47. (Canceled)

48. (Previously presented) A process chamber flow control system comprising:

a process chamber;

a substrate holder in the process chamber, the substrate holder including a supporting surface;

a first inlet leading directly into the process chamber, the first inlet being positioned at one side of the substrate holder;

an outlet positioned at an opposite side of the substrate holder from the first inlet, wherein the first inlet, the outlet, and the process chamber define a laminar flow path between the first inlet and the outlet, the laminar flow path extending across the supporting surface of the substrate holder;

a second inlet leading directly into the process chamber, the second inlet being positioned to open into the laminar flow path between the first inlet and the substrate holder;

a channeling duct configured to channel a plasma generator product to the second inlet; and

an inlet insert located in the second inlet, the inlet insert comprising an inlet plate configured to disrupt a reactive flow flowing through the second inlet into the process chamber, the inlet plate having an elongate axis, the plate comprising a flow blocking section, the plate further comprising a single opening having an elongate shape extending substantially along the elongate axis, wherein the opening is wider in a dimension perpendicular to the elongate axis at at least one portion of the axis than other portions of the axis.

49. (Original) The system of Claim 48, further including a remote plasma generator configured to produce the plasma generator product.

50. (Original) The system of Claim 48, wherein the inlet insert is configured to disrupt the plasma generator product in order to control a flow geometry of the plasma generator product flowing into the process chamber.

51.-53. (Canceled)

54. (Previously presented) The system of Claim 48, wherein the flow blocking section and the opening are together configured to produce a non-uniform reactive flow geometry substantially along the elongate axis.

55. (Previously Presented) The system of Claim 48, wherein the second inlet further comprises:

a throat defining the portion of the second inlet where the reactive flow enters the second inlet; and

a mouth defining the portion of the second inlet through which the reactive flow exits the second inlet into the process chamber, the mouth having a greater circumference than the throat.

56. (Original) The system of Claim 55, wherein the inlet insert is located between the mouth and the throat.

57. (Original) The system of Claim 55, wherein the inlet insert is located in the mouth.

58. (Original) The system of Claim 57, wherein the mouth is configured to hold the inlet insert in a selectively removable position.

59. (Previously Presented) The system of Claim 55, wherein the second inlet has a conical profile with side walls flaring outwardly from the throat to the mouth, the flared side walls having a support configured to hold the inlet insert in a selectively removable position.

60. – 73. (Canceled)

74. (Previously presented) The apparatus of Claim 48, wherein the opening is positioned generally on one side of the elongate axis, and wherein the flow blocking section is positioned generally on the other side of the elongate axis.

75. (Previously presented) The apparatus of Claim 74, wherein the flow blocking section comprises a shallow recess generally in the center of the elongate axis.

76. (Previously presented) The apparatus of Claim 48, wherein the flow blocking section comprises protrusions which extend toward the elongate axis.
77. (Previously presented) The apparatus of Claim 48, wherein the opening is wider in a dimension perpendicular to the elongate axis on the ends than on the middle of the axis.